**SMK FOMRA INSTITUTE OF TECHNOLOGY**

PROJECT

**SKILL AND JOB RECOMMENDER**

K. CHANUKYA - 312119104005

K. ANUHYA - 312119104012

Y. SILPA RANI - 312119104028

J. JYOTHSNA - 312119104009

J. SWETHA - 312119104026

**MENTOR**

Mr. R. Selvi. MTech(Ph.D.)

**LITERATURE SURVEY-1**

**TITLE**  : Vessel Detection and Tracking Method

Based on Video Surveillance.

**AUTHOR**  : N. Wawrzyniak, T. Hyla and A .Popik

**YEAR OF PUBLISHED** : 2019

Ship detection and tracking is a basic task in any vessel traffic monitored area, whether marine or inland. It has a major impact on navigational safety and thus different systems and technologies are used to determine the best possible methods of detecting and identifying sailing units.

Video monitoring is present in almost all of them, but it is usually operated manually and is used as a backup system. This is because of the difficulties in implementing an efficient and universal automatic detection method that would work in quickly alternating environmental conditions for all kind of sailing units—from kayaks to seagoing merchant vessels.

The method and the results of experiments on three sets of data using cameras with different characteristics, settings, and scene locations are presented. The experiments were carried out in variable light and weather conditions, and a wide range of unit types were used as detection objectives.

The results confirm the usability of the proposed solution; however, some minor issues were encountered in the presence of ships wakes or highly unfavourable weather conditions

**LITERATURE SURVEY-2**

**TITLE :** IoT-Based Vibration Analytics of

Electrical Machines.

**AUTHOR :** Ganga. D, Ramachandran. V

**YEAR OF PUBLISHED :** 2018

An IoT-based model for real-time condition monitoring of electrical machines, which addresses the challenges of data storage and scalability. This IoT-based vibration analytic model is evolved with an experimental setup having two sets of dc motor coupled to ac generator and an IoT device to elucidate integrated monitoring and decision making.

This IoT-based vibration analytic model uses an IoT2040 Gateway with custom Linux OS image built for acquisition and streaming of vibration signals. The Python target application acquires dc motors shaft vibration using vibration sensors and communicates the data as events to cloud through serial device driver interface. The IoT service running in cloud receives the data from multiple machines through lightweight RESTful HTTP and records the same which are retrievable for analysis and algorithm development in any platform.

The retrieved data have been analyzed using the proposed statistical classification-based signal decomposition algorithm as well as time-frequency analysis to estimate the vibration thresholds of every machine connected to IoT cloud. The uniformity of threshold values obtained from IoT-based model in comparison with that of analysis carried out on the machines locally using myRIO for data acquisition ensures the integrity of the proposed statistical classification algorithm and reliability of the IoT model for condition monitoring with assured scalability.

**LITERATURE SURVEY-3**

**TITLE :** IoT-Based Smart Irrigation Systems:

An Overview on the Recent Trend on

sensors and IOT systems for irrigation

in precious agriculture .

**AUTHOR :** Laura Garcia, Lorena parra .

**YEAR OF PUBLISHED :** 2020

Water management is paramount in countries with water scarcity. This also affects agriculture, as a large amount of water is dedicated to that use. The possible consequences of global warming lead to the consideration of creating water adaptation measures to ensure the availability of water for food production and consumption.

Typical commercial sensors for agriculture irrigation systems are very expensive, making it impossible for smaller farmers to implement this type of system. However, manufacturers are currently offering low-cost sensors that can be connected to nodes to implement affordable systems for irrigation management and agriculture monitoring. Due to the recent advances in loT and WSN technologies that can be applied in the development of these systems, the current state of the art regarding smart irrigation systems.

We determine the parameters that are monitored in irrigation systems regarding water quantity and quality, soil characteristics and weather conditions. We provide an overview of the most utilized nodes and wireless technologies. Lastly, we will discuss the challenges and the best practices for the implementation of sensor-based irrigation systems.

**LITERATURE SURVEY-4**

**TITLE :** Wind Power Plants control System based on

SCADA system.

**AUTHOR :** K. Sayad, A.G.Abo-khalli

A.M. Eltamaly.

**YEAR OF PUBLISHED :** 2017

The state of the art technology in wind power plant control and automation. This wind power plant starts with a historical background about supervisory control and automation evolution in the last decades. Several remarks are made regarding the use of SCADA Systems in wind turbine power plants.

The Supervisory Control and Data Acquisition (SCADA) systems are responsible for controlling and monitoring many of the processes that make life in the industrial world possible, such as power distribution, oil flow, communications. and many more. An overview of SCADA at the wind power plant is presented, and operational concerns are addressed and examined. Notes on future trends will be provided.

Finally, recommendations are provided regarding SCADA systems and their application in the wind power plant environment. One of the most significant aspects of SCADA is its ability to evolve with the ever-changing face of Information Technology (IT) systems.

**LITERATURE SURVEY-5**

**TITLE :** Monitoring of Hazardous Gases in

Process Industries Through Internet.

**AUTHOR**  **:**  P. Ragavi, Dr. K. R. Valluvan .

**YEAR OF PUBLISHED :** 2016

In our day to-day life there are many industries working with various hazardous chemical gases and the workers are often exposed to these gases. The unexpected accident cause a great impact to human lives and properties. To avoid these situations we need to develop an Automatic Toxic Gases Detection and Alerting System. The existing detection systems are available to seme only a particular gas and they use GSM technology to indicate the critical situations.

In this the dangerous, toxic and flammable gases such as Hydrogen Sulfide gas, Carbon Monoxide gas, Ammonia gas, and Methane gas are sensed using individual gas sensors and an Arduino UNO controller. The concentration of all gases values are displayed in ppm using a Liquid Crystal display in the plant premises; when the value exceeds the limited range then an alarm is put on.

The values are constantly uploaded to the internet by using Ethernet module with an Arduino controller. The Internet of Things (IoTs) provides a proper access to values by an authorized persons and governmental organization. A database is also maintained, this helps to know the status of an industry. The timely sensing of chemical toxic gases offers a quick response on an emergency situation and therefore leading faster diffusion of the critical situation.